REMARKS

Claims 1-2, 5-9, 11-12 and 15-19 are pending in this application. In light of the following remarks, Applicants respectfully request reconsideration and allowance of the pending claims.

I. Objection to the Specification

The Office Action objects to the Specification and requests that Applicants better explain the feature "a value of a time quadrature of a fluid pressure" added from claim 10 to claim 1.

As best as Applicants understand this objection, the Office Action is asking for an explanation of what time quadrature is, and is requesting that time quadrature be defined in the Specification in a more straightforward manner than at present. The time quadrature PI of the fluid pressure is the integral of the fluid pressure over time. As discussed in paragraph [0052], the actual slip rate can be controlled to match the target slip rate by changing the time quadrature PI in proportion to the deviation of the actual slip rate from the target slip rate. The implementation of this correction of the actual slip rate by the ECU 10 is explained in paragraphs [0056]-[0058] and at paragraphs [0060] and [0061] as changing the integral of the fluid pressure per unit time to effect the change on the actual slip rate.

Thus, as recited in independent claims 1 and 11, "a value of time quadrature" refers to an integral of the fluid pressure over a time period.

By this Amendment, paragraph [0051] is amended to explain more succinctly the time quadrature already set forth in the Specification as explained above.

II. Claim rejection under 35 U.S.C. §103(a)

The Office Action rejects claims 1, 2, 5-12 and 15-19 under 35 U.S.C. §103(a) over U.S. Patent No. 5,863,105 to Sano in view of U.S. Patent No. 5,636,909 to Hirao et al.

(Hirao) and further in view of U.S. Patent No. 6,584,397 to Tanaka et al. (Tanaka).* Applicants respectfully traverse the rejection.

Regarding claim 1, Sano fails to disclose a controller adapted to "during a specific brake control mode in which the target slip rate is set so as to prevent the actual slip rate of the wheel from exceeding a reference value and therefore avoid locking the wheel, make a first correction to the target slip rate set in the brake control mode such that the actual yaw rate of the vehicle matches a target yaw rate."

Sano discloses a turn control apparatus including a computation means which computes the control amount of braking force to apply to a wheel to be controlled in order to control a yaw moment of a vehicle (col. 1, lines 63-66). A correction means corrects a target slip ratio for the wheel to be controlled based on the control amount of braking force computed by the computation means (col. 1, lines 66-col. 2, line 1). Further, the correction means acts when the antiskid braking system should be activated (col. 2, lines 1-2).

Because Sano discloses correcting a target slip ratio by the control amount of braking force (intended to control the yaw moment) when the antiskid brake system (ABS) should be activated (e.g. when the actual slip is beyond a threshold value) as opposed to the recited first correction made in a mode in which the target slip is controlled to prevent the actual slip from exceeding a reference value, Sano does not disclose the claimed first correction.

Further, the Office Action admits that Sano does not disclose making a first correction such that the actual yaw rate matches a target yaw rate, but alleges that this is disclosed in the discussion of prior art in col. 1. The discussion in col. 1 does not mention any corrections done to the target slip rate in a brake control mode in which the target slip rate is controlled to

* Claim 10 was canceled in the previous response.

prevent the actual slip rate from exceeding a reference value. Thus, the disclosure of col. 1 does not cure the Office Action's admitted deficiency of Sano.

The Office Action alternatively relies on Hirao to cure the admitted deficiency that Sano does not disclose correcting the target slip rate in order to make the actual yaw rate match the target yaw rate. The Office Action alleges that cols. 1-5 and especially col. 4, lines 5-25 disclose this feature. As with Sano, the cited sections fail to disclose the recited first correction made during the recited specific brake control mode. In col. 4, lines 5-25, Hirao discloses actual yaw rate detection means, reference yaw rate detection means, and a correction means which makes an instable-state-based correction to reduce the target slip rate when the difference in the actual yaw rate and the reference yaw rate is equal to or larger than a predetermined value when the vehicle is in an instable state. Because an instable state is not a specific brake control mode where actual slip rate is controlled to avoid exceeding a reference value, Hirao fails to disclose the first correction made in a mode when the actual slip rate is controlled to avoid exceeding a reference value.

Regarding claims 1 and 11, Sano fails to disclose the controller being adapted to "ensure through an adjustment of the target slip rate, a provision of a greater longitudinal force on the wheel than that obtained with the target slip rate determined or would have been determined by the first correction if a reduction in braking force of the vehicle is expected, wherein the controller is further adapted to bring about the adjustment of the target slip rate by increasing the target slip rate determined by the first correction or by prohibiting the first correction."

Neither Sano, Hirao nor Tanaka discloses adjusting a first correction to a target slip rate to provide greater longitudinal force when there is an expectation that the braking force will be reduced. Because this feature is not disclosed by the applied references, the claims are allowable.

Further regarding claims 1 and 11, the Office Action admits that Sano in view of Hirao fails to disclose the controller adapted to "control a value of time quadrature of a fluid pressure that is applied to the brake apparatus in proportion to a deviation of the actual slip rate from the target slip rate." The Office Action alleges that Tanaka cures this deficiency.

By this amendment, the Specification is amended to more succinctly recite that the time quadrature is proportional to an integral of the fluid pressure. While the applied references disclose increasing braking pressure by increasing fluid pressure, none discloses controlling the fluid pressure by controlling the time quadrature of the fluid pressure. Because this feature is not disclosed by the applied references, the claims are allowable.

Tanaka, in the cited section in col. 11, corresponding to step S19 of Fig. 2A, discloses supply of hydraulic pressure but does not disclose that the brake pressure applied is controlled based on the time quadrature (integral) of the fluid pressure. Thus, Tanaka does not disclose the feature of controlling the time quadrature of the fluid pressure applied to the brake of a wheel.

For the foregoing reasons, claims 1, 11, and their dependent claims, are allowable over the applied references. Thus, Applicants respectfully request withdrawal of the rejection.

III. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-2, 5-9, 11-12 and 15-19 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,

James A. Oliff
Registration No. 27,075

Jonathan H. Backenstose
Registration No. 47,399

JAO:JHB/tbm

Date: July 19, 2006

OLIFF & BERRIDGE, PLC
P.O. Box 19928
Alexandria, Virginia 22320
Telephone: (703) 836-6400

DEPOSIT ACCOUNT USE AUTHORIZATION
Please grant any extension necessary for entry;
Charge any fee due to our Deposit Account No. 15-0461